

AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

Claims 1-53. (Canceled)

54. (Previously Presented) An ink composition comprising at least a coloring agent and a medium, wherein the ink composition has a dynamic surface tension, measured by a maximum bubble pressure method at a temperature of 24 to 26°C, and a static surface tension measured at a temperature of 24 to 26°C which satisfy the following relation (1):

$$0 \leq [\text{dynamic surface tension (mN/m)}] - [\text{static surface tension (mN/m)}] \leq 7$$

(mN/m) (1),

said composition further comprising a surfactant which is present at least in an amount of a critical micelle concentration.

55. (Previously Presented) The ink composition of claim 54, wherein a bubble frequency, at which the dynamic surface tension is measured, is within a range from 0.5 to 35 Hz.

56. (Previously Presented) The ink composition of claim 54, wherein the static surface tension is within a range of from 20 to 50 mN/m.

57. (Previously Presented) The ink composition of claim 54, further comprising water as a medium.

58. (Previously Presented) The ink composition of claim 54, wherein the medium includes a glycol ether and/or a polyhydric alcohol.

59. (Previously Presented) The ink composition of claim 54, wherein the coloring agent includes a dye.

60. (Previously Presented) The ink composition of claim 54, wherein the coloring agent includes a pigment.

61. (Previously Presented) The ink composition of claim 54, wherein the coloring agent includes a pigment having a hydrophilic group.

62. (Previously Presented) The ink composition of claim 54, wherein the surfactant includes a nonionic surfactant.

63. (Previously Presented) The ink composition of claim 60, wherein the pigment includes at least one of C. I. Pigment blue 15:3, C. I. Pigment blue 15:4, C. I. Pigment red 122, C. I. Pigment red 209, C. I. Pigment violet 19, C. I. Pigment yellow 74, C. I. Pigment yellow 138, C. I. Pigment yellow 150 and C. I. Pigment yellow 180.

64. (Previously Presented) A recording method for recording an image, comprising:

depositing an ink composition on a recording material,

wherein the ink composition is the ink composition of claim 54.

65. (Previously Presented) The recording method of claim 64 wherein, prior to said depositing, said ink composition is pressurized to discharge a liquid droplet of the ink composition; and

said depositing comprises depositing the liquid droplet on the recording material.

66. (Previously Presented) A recording method of claim 64, wherein the ink composition comprises a yellow pigment, a magenta pigment and a cyan pigment.

67. (Previously Presented) A recording method for recording an image, comprising:

pressurizing an ink composition to discharge a liquid droplet of an ink composition; and

depositing the liquid droplet on a recording material, wherein the ink composition comprises a blue pigment, a red or violet pigment, and a yellow pigment of claim 63.

68. (Previously Presented) A recorded image recorded by the recording method of claim 64.

69. (Previously Presented) A recorded image recorded by the recording method of claim 65.

70. (Previously Presented) An ink set comprising a blue pigment, a red or violet pigment, and a yellow pigment of claim 63.

71. (Withdrawn) An ink head comprising:
an ink tank comprising the ink composition of claim 54;
an ink chamber having a discharge port for discharging a liquid droplet of the ink composition and receiving a supply of the ink composition from the ink tank;
a piezoelectric element generating a strain in response to an applied voltage and provided at least in a part of the ink chamber thereby applying a pressure to the ink composition contained in the ink chamber; and
an electrode for applying a voltage to the piezoelectric element.

72. (Withdrawn) An ink head comprising:
an ink tank comprising the ink composition of claim 54;
an ink chamber having a discharge port for discharging a liquid droplet of the ink composition and receiving a supply of the ink composition from the ink tank;
a heat generating member provided in at least a part of the ink chamber, for heating the ink composition contained in the ink chamber to generate a bubble therein and thereby applying a pressure to the ink composition; and
an electrode for applying a voltage to the heat generating member.

73. (Withdrawn) A recorded image recorded by depositing a liquid droplet of an ink composition, discharged by the ink head of claim 71, onto a recording material.

74. (Withdrawn) A recorded image recorded by depositing a liquid droplet of an ink composition, discharged by the ink head of claim 72, onto a recording material.

75. (Currently Amended) An ink composition comprising at least a coloring agent and a medium, wherein among dynamic surface tensions measured by a maximum bubble pressure method at a temperature of 24 to 26°C, a dynamic surface tension (α_{10}) at a bubble frequency of 10 Hz and a dynamic surface tension (α_1) at a bubble frequency of 1 Hz have a difference $d (= \alpha_{10} - \alpha_1)$ satisfying the following relation (2):

$$0 \text{ mN/m} \leq d \leq 7 \text{ [[nM/m]]mN/m} \quad (2),$$

said composition further comprising a surfactant which is present at least in an amount of a critical micelle concentration.

76. (Previously Presented) An ink composition comprising at least a coloring agent and a medium, wherein among dynamic surface tensions measured by a maximum bubble pressure method at a temperature of 24 to 26°C, a dynamic surface tension (α_{10}) at a bubble frequency of 10 Hz and a dynamic surface tension (α_1) at a bubble frequency of 1 Hz have a difference $d (= \alpha_{10} - \alpha_1)$ satisfying the following relation (2):

$$0 \text{ mN/m} \leq d \leq 7 \text{ mN/m} \quad (2),$$

the coloring agent consists of a dye.

77. (Previously Presented) The ink composition of claim 75, wherein a bubble frequency, at which the dynamic surface tension is measured, is within a range from 0.5 to 35 Hz.

78. (Previously Presented) The ink composition of claim 75, wherein the static surface tension is within a range of from 20 to 50 mN/m.

79. (Previously Presented) The ink composition of claim 75, further comprising water as a medium.

80. (Previously Presented) The ink composition of claim 75, wherein the medium includes a glycol ether and/or a polyhydric alcohol.

81. (Previously Presented) The ink composition of claim 75, wherein the coloring agent includes a dye.

82. (Previously Presented) The ink composition of claim 75, wherein the coloring agent includes a pigment.

83. (Previously Presented) The ink composition of claim 75, wherein the coloring agent includes a pigment having a hydrophilic group.

84. (Previously Presented) The ink composition of claim 75, wherein the surfactant includes a nonionic surfactant.

85. (Previously Presented) The ink composition of claim 82, wherein the pigment includes at least one of C. I. Pigment blue 15:3, C. I. Pigment blue 15:4, C. I. Pigment red 122, C. I. Pigment red 209, C. I. Pigment violet 19, C. I. Pigment yellow 74, C. I. Pigment yellow 138, C. I. Pigment yellow 150 and C. I. Pigment yellow 180.

86. (Previously Presented) A recording method for recording an image, comprising:

depositing an ink composition on a recording material,

wherein the ink composition is the ink composition of claim 75.

87. (Previously Presented) The recording method of claim 86 wherein, prior to said depositing, said ink composition is pressurized to discharge a liquid droplet of the ink composition; and

said depositing comprises depositing the liquid droplet on the recording material.

88. (Previously Presented) A recording method of claim 86, wherein the ink composition comprises a yellow pigment, a magenta pigment and a cyan pigment.

89. (Previously Presented) A recording method for recording an image, comprising:

pressurizing an ink composition to discharge a liquid droplet of an ink composition; and

depositing the liquid droplet on a recording material, wherein the ink composition comprises a blue pigment, a red or violet pigment, and a yellow pigment of claim 85.

90. (Previously Presented) A recorded image recorded by the recording method of claim 75.

91. (Previously Presented) A recorded image recorded by the recording method of claim 87.

92. (Previously Presented) An ink set comprising a blue pigment, a red or violet pigment, and a yellow pigment of claim 85.

93. (Withdrawn) An ink head comprising:
an ink tank comprising the ink composition of claim 75;
an ink chamber having a discharge port for discharging a liquid droplet of the ink composition and receiving a supply of the ink composition from the ink tank;
a piezoelectric element generating a strain in response to an applied voltage and provided at least in a part of the ink chamber thereby applying a pressure to the ink composition contained in the ink chamber; and

an electrode for applying a voltage to the piezoelectric element.

94. (Withdrawn) An ink head comprising:

an ink tank comprising the ink composition of claim 75;

an ink chamber having a discharge port for discharging a liquid droplet of the ink composition and receiving a supply of the ink composition from the ink tank;

a heat generating member provided in at least a part of the ink chamber, for heating the ink composition contained in the ink chamber to generate a bubble therein and thereby applying a pressure to the ink composition; and

an electrode for applying a voltage to the heat generating member.

95. (Withdrawn) A recorded image recorded by depositing a liquid droplet of an ink composition, discharged by the ink head of claim 93, onto a recording material.

96. (Withdrawn) A recorded image recorded by depositing a liquid droplet of an ink composition, discharged by the ink head of claim 94, onto a recording material.